

REMARKS

The present application was filed on September 15, 1999 with claims 1-6. In the outstanding Office Action dated March 14, 2003, the Examiner has: (i) rejected claims 2-3 under 35 U.S.C. §112, second paragraph as being indefinite; and (ii) rejected claims 1-6 under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 5,870,545 to Davis et al. (hereinafter "Davis").

In this response, the specification has been amended to correct a typographical error and claims 2-3 have been amended in a manner which Applicants believe address the rejection under §112. Applicants traverse the §112 and §102(e) rejections for at least the reasons set forth below. Applicants respectfully request reconsideration of the present application in view of the above amendments and the following remarks.

Applicants hereby request acknowledgment of a claim for priority under 35 U.S.C. §119(a)-(d) of European Application No. 98123971.8 filed on December 17, 1998 which appears to have been omitted from Paper No. 3. Additionally, Applicants respectfully request that the attorney docket number corresponding to the present application be changed from "GE998-078" to "DE919980078" in order to correct a typographical error.

Claims 2 and 3 stand rejected under §112 as being indefinite. Specifically, the Examiner contends that the term "commencing-activity" set forth in claims 2 and 3 is not defined by the claim and that the specification "does not provide a standard for ascertaining the requisite degree" (Office Action; page 2, paragraph 2). Applicants respectfully disagree with the Examiner's contention in this regard and submit that the present specification at least inherently defines a commencing activity as one of the activities in the process model which is coupled (by a control connector) to a target activity and from which control flow originates (specification; page 21, lines 8-11). This definition provides an adequate description by which one skilled in the art can ascertain the meaning of the term "commencing activity" as recited in the subject claims. Notwithstanding the above traversal, however, Applicants have amended claim 2 merely for clarity. Accordingly, favorable consideration and allowance of claims 2 and 3 are respectfully solicited.

Claims 1-6 stand rejected under 35 U.S.C. §102(e) as being anticipated by the Davis reference. Specifically, the Examiner contends that each of the elements set forth in the subject claims is disclosed in Davis. Applicants respectfully disagree with this contention. Davis is directed to a system and method for performing flexible workflow process compensation in a distributed

workflow management system, and thus Davis addresses an entirely different problem than that of the claimed invention. As described in Davis, the objective of process compensation is to bring a failed process execution back to a consistent state so that the process can fix the problem and proceed again (Davis; column 14, lines 12-15).

Applicants submit that independent claims 1, and 4-6 which are of similar scope, are patentable over the Davis reference. Specifically, claim 1 recites a “timed-evaluation-step” for evaluating whether one of the incoming control connectors is associated with a time interval and, if so, whether the time interval has been met. The prior art fails to disclose at least this feature of the claimed invention. The Examiner contends that Davis teaches such feature at column 7, lines 9-15, where it states:

Rule nodes 42, 44, 47, 49, 51, 53, 55 are used to specify workflow processes 18 that are more complex than a simple sequence. A rule language is used to program the rule node decision. When executed, a rule node 42 determines which outward arcs to fire based on the status passed along the inward arcs, the time at which each inward arc is fired and process-relevant data associated with the process instance.

Applicants respectfully disagree with this contention and assert that nowhere does Davis teach or suggest associating a time interval with a control connector, and moreover, evaluating whether an incoming control connector is associated with a time interval. In this regard, the Examiner seems to analogize the “time at which each inward arc is fired” (Davis; column 7, line 14) with the “time interval” recited in the claimed invention. However, Applicants submit that the time when an arc fires defines a specific point in time rather than an interval, and thus cannot reasonably be analogized to the time interval as the term is used in the subject claims.

An advantage of the claimed invention, which is a deviation from conventional methodologies, is that by associating time intervals to control connectors, a target activity can proceed with its processing even when all of the incoming control connectors corresponding to the target activity have not been evaluated (specification; page 19, lines 15-23). Specifically, claim 1 requires that, when at least one of the incoming control connectors is associated with a time interval and when that time interval has been met, the timed evaluation step starts the target activity “even if not all truth-values of said incoming control-connectors have been posted yet.” In this manner, the portions of the target activity that can be started are allowed to continue, without having to wait for

all incoming control connectors to be evaluated first. Davis fails to teach or remotely suggest associating control connectors with a time interval and therefore evaluation of a join condition only takes place after all incoming control connectors of a target activity have been evaluated. In contrast to the claimed invention, by using the approach taught by Davis, if an incoming control connector never gets evaluated (fired), the process simply halts. Or, if an incoming control connector is evaluated late, the process may not be completed in time.

Regarding the feature of the claimed invention that enables processing of the target activity even if not all truth-values have been evaluated, the Examiner contends that Davis discloses such limitation at column 12, lines 24-26 and 44-51, where it states:

Every activity instance has a start time and a complete time if it completes. . . A rule node 151 is used to define a process flow that is more complex than a simple sequence, such as concurrent process execution or the synchronization of tasks. In the described embodiment, each rule node 151 contains a list of condition-action rules. The condition is a boolean expression of values, such as the execution status of other nodes, the time at which each incoming arc was fired and other data used in the process instance. The action fires outgoing arcs.

Applicants respectfully disagree with this contention. Although every activity instance may have a start time and an end time (if it completes) associated therewith and rule nodes may be used to control process flow, as is well known in the art, Davis fails to disclose any mechanism whatsoever that allows a target activity to proceed the moment a time interval associated with an incoming control connector has been met, even though all incoming control connectors have not been evaluated, as specifically set forth in the subject claims.

For at least the reasons set forth above, Applicants submit that claims 1 and 4-6 are patentable over the prior art. Accordingly, favorable reconsideration and allowance of these claims are respectfully solicited.

With regard to claims 2 and 3, which depend from claim 1, Applicants assert that these claims are also patentable over the prior art of record by virtue of their dependency from claim 1, which is believed to be patentable for at least the reasons given above. Furthermore, one or more of these claims define additional patentable subject matter in their own right. For instance, claim 2 further defines the timed-evaluation step as utilizing, as a starting point for the time interval, the point in time when a commencing activity is completed. Davis fails to teach or suggest at least this

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limitation of the claimed invention. Instead, the Examiner seems to incorrectly analogize a “start work node 150” (Davis; column 13, lines 13-7) with the use of the completion of a commencing activity as the starting point of the associated time interval. Accordingly, claims 2 and 3 are believed to be patentable over the cited prior art, not merely by virtue of their dependency from claim 1, but also in their own right. Therefore, favorable reconsideration and allowance of these claims are respectfully requested.

In view of the foregoing, Applicants believe that pending claims 1-6 are in condition for allowance, and respectfully request withdrawal of the §112 and §102 rejections.

Attached hereto is a marked-up version of the changes made to the specification and claims by the present Amendment. The attachment is captioned “Version with Markings to Show Changes Made.”

Respectfully submitted,



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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION

The paragraph beginning on page 19, line 15, has been amended as follows:

As deviation from said standard behavior the proposed teaching allows [to associate] one or more control connectors to be associated with a time [internal] interval. Once said time interval has been expired, the processing to start the target activity is continued, even if not all truth values of said incoming control connectors have been posted yet, if the truth value of the incoming control connector (associated with said time interval) has been posted and if said truth value evaluates to TRUE.

IN THE CLAIMS

Claims 2 and 3 have been amended as follows:

2. (Amended) A [Method] method for processing of start-conditions [processed] according to claim 1,

wherein said first incoming control-connector is associated with a commencing-activity, the commencing-activity corresponding to one of the process-activities in the process model, and

wherein said timed-evaluation-step uses as a starting point for said time-interval the point in time when said commencing-activity is completed.

3. (Amended) A [Method] method for processing of start-conditions [processed] according to claim 2,

wherein said first incoming control-connector is associated with a path from said commencing-activity to said target-activity, and

said timed-evaluation-step is continuing the processing to start said target-activity,
if said associated path has been traversed.